

Claims

We claim:

1. A method for routing messages in a network, said method comprising the steps of

identifying a first one message of a first plurality of messages, said first plurality of messages having at least one first routing treatment in common;

recording said first routing treatment;

identifying a second one message of said first plurality of messages;

routing said second one message responsive to said first routing treatment.

2. A method as in claim 1, wherein

said first one message comprises a packet;

said first plurality of messages comprises a stream of packets associated with a selected source device and a selected destination device.

3. A method as in claim 2, wherein said stream of packets is associated with a first selected port number at said source device and a second selected port number at said destination device.

4. A method as in claim 1, wherein said first plurality of messages comprises a message flow.

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2 5. A method as in claim 1, wherein said first plural-
3 ity of messages comprises an ordered sequence, and said first one
4 message has a selected position in said ordered sequence.

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6 6. A method as in claim 1, wherein said first plural-
7 ity of messages comprises a stream of messages between a selected
8 pair of transport access points.

9
10 7. A method as in claim 1, wherein said step of re-
11 cording comprises building an entry in a flow cache.

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13 8. A method as in claim 1, comprising the step of
14 identifying a message of a second plurality of messages, said
15 second plurality of messages having at least one second routing
16 treatment in common, said second routing treatment differing from
17 said first routing treatment.

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19 9. A method as in claim 1, wherein said routing
20 treatment comprises access control information for said first one
21 message.

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23 10. A method as in claim 1, wherein said routing
24 treatment comprises a destination output port for routing said
25 first one message.

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27 11. A method as in claim 1, comprising the steps of
28 recording information about said first plurality of
29 messages; and

1 transmitting said information to at least one selected
2 device on said network.

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4 12. A method as in claim 11, wherein said information
5 comprises

6 a transmission time for an initial one message in said
7 plurality of messages;

8 a transmission time for a most recent one message in
9 said plurality of messages;

10 a cumulative count of bytes in said plurality of mes-
11 sages; or

12 a cumulative count of said one messages in said plural-
13 ity of messages.

14

15 13. A method as in claim 11, comprising the steps of
16 receiving said information at said selected device on
17 said network;

18 recording said information in a database at said se-
19 lected device; and

20 making said information available to a second device on
21 said network.

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23 14. A system for routing packets in a network, said
24 system comprising

25 means for receiving a stream of packets, said stream of
26 packets comprising a plurality of message flows, each said packet
27 being associated with one selected message flow, each said mes-
28 sage flow having at least one routing treatment in common;

29

1 means for associating packets with a first one of said
2 message flows;

3 a flow cache having an entry associated with said first
4 one message flow;

5 means for routing packets responsive to entries in said
6 flow cache.

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8 15. A system as in claim 14, wherein said entry com-
9 prises access control information.

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11 16. A system as in claim 15, wherein said entry com-
12 prises a destination output port for routing packets.

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14 17. A system as in claim 14, comprising means for
15 transmitting information responsive at least one said entry to at
16 least one selected device on said network.

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18 18. A system as in claim 17, wherein said information
19 comprises

20 a transmission time for an initial one message in said
21 plurality of messages;

22 a transmission time for a most recent one message in
23 said plurality of messages;

24 a cumulative count of bytes in said plurality of mes-
25 sages; or

26 a cumulative count of said one messages in said plural-
27 ity of messages.

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